

**REMARKS**

Favorable reconsideration of this application is respectfully requested in view of the following remarks. Currently, claims 1-23 are pending in the present application of which claims 1, 11, 16, and 23 are independent.

Claims 1-23 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tachikawa (U.S. Patent Number 6,636,951) in view of Sakaki et al. (U.S. Patent Number 6,230,239). The above rejections are respectfully traversed for at least the reasons set forth below.

**Claim Rejection Under 35 U.S.C. §103**

The test for determining if a claim is rendered obvious by one or more references for purposes of a rejection under 35 U.S.C. § 103 is set forth in MPEP § 706.02(j):

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).

Therefore, if the above-identified criteria are not met, then the cited reference(s) fails to render obvious the claimed invention and, thus, the claimed invention is distinguishable over the cited reference(s).

Claims 1-23 were rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Tachikawa in view of Sakaki et al. This rejection is respectfully traversed because Tachikawa and Sakaki et al., considered singly or in combination, fail to teach or suggest the claimed invention as set forth in claims 1, 11, 16, 23 and their dependents.

Tachikawa discloses a data storage system and data relocation method. The method uses a controller 11 to control the relocation of data between storage sections 171 and 172. The controller 11 monitors a load estimator 12 to determine a load condition of a computer system. If the load condition is high, or above a predetermined threshold, data relocation is halted. In addition, the controller 11 determines whether an operational state of the system meets a requirement of suspension. See Column 9 Lines 40-43. If the requirement of suspension is met, the controller performs a termination process, suspending the relocation of data. See Column 10 Lines 5-22. Alternatively, if the load condition is low, or below a predetermined threshold, data relocation continues according to the predetermined plan. See Column 12 Lines 34-51. Clearly, Tachikawa discloses a simple on/off arrangement for relocating data whereby data is moved when the load condition is low and is not moved when the load condition is high.

Claims 1, 11, 16, and 23 recite, *inter alia*, calculating a change in a rate of the moving in response to the monitored performance of the at least one application and modifying the rate of the moving in accordance with the calculated change. In one respect, Tachikawa fails to teach the calculation of a change in the rate of said moving based on the performance of at least one application as recited in claims 1, 11 and 16. In fact, Tachikawa, as described above, uses a simple on/off arrangement for moving data from one location to another. That is, either data is being transferred during a low load condition or not transferred during a high

load condition. There is no mechanism shown in Tachikawa for regulating the rate by calculating a change in rate based on the load condition. In addition, Tachikawa fails to disclose that the rate of moving the data is modified or adjusted as set forth in claims 1, 11, 16, and 23 of the present invention.

Sakaki et al. fails to make up for this deficiency in Tachikawa. Sakaki et al. discloses that migration speed is adjusted by changing the number of tracks to be read or by changing the issuing interval of the command chains issued by one of the CPU's. However, Sakaki et al. does not calculate a change in the rate based on the performance of at least one application. Although Sakaki et al. may calculate cache resource information (Column 8 Lines 8-14), path resource information (Column 8 Lines 15-23), and old VOL resource information (Column 8 Lines 24-31), these calculations do not relate to the performance of at least one application. For instance, if the at least one application is very intensive but the performance required is very low, it may be beneficial to increase the data migration speed; whereas, in Sakaki et al. those parameters for the at least one application are not measured. Only parameters relating to the performance of the CPU in general is measured in Sakaki et al. Accordingly the Applicants respectfully submit that Tachikawa and Sakaki et al. fail to teach or suggest calculating a change in rate according to the performance of at least one application as recited in claims 1, 11, 16, and 23.

At least by virtue of Tachikawa's and Sakaki et al.'s failure to teach or suggest the above-identified element of claims 1, 11, 16, and 23, a *prima facie* case of obviousness has not been established under 35 U.S.C. § 103. Accordingly, the Examiner is respectfully requested to withdraw the rejection of claims 1, 11, 16, and 23. Claims 2-10 depend upon

**PATENT**

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allowable claim 1, claims 12-15 depend upon allowable claim 11 and claims 17-20 depend upon allowable claim 16 and are also allowable at least by virtue of their dependencies.

Conclusion

In light of the foregoing, withdrawal of the rejections of record and allowance of this application are earnestly solicited.

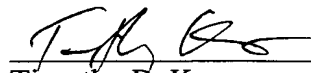
Should the Examiner believe that a telephone conference with the undersigned would assist in resolving any issues pertaining to the allowability of the above-identified application, please contact the undersigned at the telephone number listed below. Please grant any required extensions of time and charge any fees due in connection with this request to deposit account no. 08-2025.

Respectfully submitted,

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Dated: March 2, 2005

By



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